GOVERNMENT OF INDIA
CIVIL AVIATION
LOK SABHA

STARRED QUESTION NO:416
ANSWERED ON:16.04.2001
SURVEILLANCE SYSTEM FOR AIR TRAFFIC MANAGEMENT
ANNA SAHEB M.K. PATIL

Will the Minister of CIVIL AVIATION be pleased to state:

(a) whether the Government have prepared plans to provide satellite based communication, navigation surveillance system for Air Traffic Management;

(b) if so, the details thereof;

(c) whether the Government have assessed the effectiveness of the system of air traffic management; and

(d) if so, the details thereof?

Answer

THE MINISTER OF CIVIL AVIATION (SHRI SHARAD YADAV)

(a), (b), (c) & (d) :- A Statement is laid on the Table of the Sabha.

STATEMENT IN REPLY TO PARTS (a), (b), (c) and (d) OF LOK SABHA STARRED QUESTION NO. 416 FOR ANSWER ON 16.04.2001 REGARDING SURVEILLANCE SYSTEM FOR AIR TRAFFIC MANAGEMENT

(a) and (b) :- Airports Authority of India (AAI) has prepareda plan for transition to the satellite based Communication, Navigation, Surveillance (CNS) and Air Traffic Management(ATM) System for the Indian airspace in consonance with the Global as well as Asia Pacific Regional Transition Plan prepared by the International Civil Aviation Organisation (ICAO). The plan envisages :-

(i) introduction of the Aeronautical Telecommunication Network (ATN) based on data communication as opposed to voice communication at present;

(ii) introduction of satellite navigation which use the signals broadcast by the core satellite constellations; This would involve implementation of a Satellite Based Augmentation System (SBAS) for more critical phases of a flight like terminal area navigation and precision approach and landing.

(iii) introduction of Automatic Dependent Surveillance (ADS) for facilitating positive surveillance over the oceanic airspace as opposed to the present system of aircraft giving its position report while flying over the oceanic air space over Radio Telephony; and

(iv) introduction of Air Traffic Management (ATM) procedures.

(c) and (d) :- Yes, Sir. Major direct operational benefits that would accrue on introduction of satellite based CNS/ATMsystem are as under:-

(i) Data communication eliminates the possibility of misunderstanding / misinterpretation of communication between ATC and the pilot in voice communication which could lead to hazardous situations.

(ii) Data communication being much faster than voice communication eliminates communication channel congestion in busy terminal areas thus enhancing air safety.

(iii) Satellite navigation facilitates direct routes between origin and destination thus reducing flying time and resultant saving in fuel.

(iv) Satellite navigation enhances airspace capacity and eliminates choke points as in the present system;

(v) Better surveillance over all kinds of airspace leads to enhanced air safety.

(vi) Enhanced level of automation both in aircraft and ATC centres resulting from use of Data communication, ADS and other

elements of the new system would lead to reduction of ATC and pilot work load thus enhancing air safety.